REMARKS

Applicant thanks the Examiner for a thorough search of the present application, but respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 2, 4, 7, 9, 11, and 13 are requested to be cancelled.

Claims 1, 5, 6, and 10 are currently being amended.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 3, 5, 6, 8, 10, and 12 are now pending in this application.

I. Claim rejection under 35 U.S.C. § 103(a)

In section 2 of the Office Action of February 28, 2008, the Examiner rejected claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,638,871 to Raychaudhuri et al. (Raychaudhuri) in view of U.S. Patent No. 5,978,380 to Kobayashi et al. (Kobayashi) and further in view of U.S. Patent No. 6,754,182 to Anzar et al. (Anzar)[1]. Applicant respectfully traverses the rejection for the reasons set forth below.

The Examiner asserted that Raychaudhuri and Kobayashi teach all of the required limitations of previously presented independent claims 1, 5, 6, and 10. In addition, the Examiner asserted that that Raychaudhuri and Kobayashi teach all required limitations of previously presented dependent claims 2, 7, and 11. Applicant respectfully disagrees with the Examiner's position. In particular, and as discussed in greater detail below, Applicant submits that Raychaudhuri and Kobayashi, alone or in combination, fail to teach or suggest

[1] Applicant notes that the Examiner mistakenly indicated that claims 1-13 were rejected under section 103(a) as being unpatentable over Raychaudhuri in view of Kobayashi further in view of Anzar. In actuality, claims 1, 2, 5-7, 10, and 11 were rejected under Raychaudhuri in view of Kobayashi and claims 3, 4, 8, 9, 12, and 13 were rejected under Raychaudhuri in view of Kobayashi further in view of Anzar.

instructing an ATM channel based on the state of a wireless channel, as required by previously presented independent claims 1, 5, 6, and 10. Moreover, Applicant submits that Raychaudhuri and Kobayashi, alone or in combination, fail to teach or suggest setting a priority to each data received from the plurality of mobile apparatuses according to the state of each wireless device, as required by previously presented dependent claims 2, 7, and 11.

Raychaudhuri teaches a MAC layer protocol for use in a wireless ATM system (Abstract). As depicted in Figure 2, Raychaudhuri teaches a base station (42) that communicates with a fixed ATM network and a wireless ATM network. Accordingly, "a mobile terminal 32 including a wireless network interface unit (W-NIU) 34 [that] transmits wireless ATM cells 30 to ... a base station 38." (Col. 5, lines 1-4). At the base station, [t]he data is converted to a standard 48 byte ATM cell 40 and is transmitted ... to an ATM Based Switching Network 44 for further distribution." (Col. 5, lines 5-7). Thus, Raychaudhuri teaches a base station that has the ability to communicate and transfer data between a fixed ATM network and a wireless ATM network. However, Raychaudhuri fails to teach or suggest that "a band of an ATM channel has a band instructed by a channel QoS management unit," as recited in independent claim 1. Furthermore, Raychaudhuri fails to teach or suggest obtaining "state information of the wireless channel" and giving "a channel control instruction based on the state information of the wireless channel," as recited in independent claims 1, 5, 6, and 10. The Examiner correctly recognized these deficiencies by stating that "Raychaudhuri is silent with regards to a channel control unit to regulate ATM channel bandwidth or of a channel QoS management unit that gives instructions to the channel control unit based on the state information of the wireless channel." (Section 4 of Office Action). However, the Examiner asserted that Kobayashi cures these deficiencies. Applicant respectfully disagrees with the Examiner's position.

Kobayashi is directed to an apparatus for establishing a common signal channel with a flexible channel capacity for effective utilization of the total traffic capacity between two exchanges or systems. (Abstract). To achieve this, Kobayashi teaches "traffic volume detecting means for detecting traffic volume in a common signal channel." (Col. 2, lines 3-5). The traffic volume is provided to a "channel capacity change determining means for determining whether a channel capacity to which the common signal channel is set needs to

be changed or not ... based on the traffic volume detected by the traffic volume detecting means...." (*See, e.g.,* col. 2, lines 3-10 and col. 3, lines 45-61). If a change is warranted, Kobayashi further teaches a "channel capacity change executing means for executing a change in the channel capacity to which the common signal channel is set...." (See, e.g., col. 2, lines 11-13 and col. 3, lines 45-61). Therefore, Kobayashi teaches "a channel capacity to which the common signal channel 2 is to be set is determined depending on the traffic volume in the common signal channel 2." (Col. 3, lines 62-65). In other words, Kobayashi teaches setting a current common signal channel capacity based on the measured traffic volume in the common signal channel.

In contrast, independent claim 1 recites that a channel QoS management unit gives "channel control instructions based on the state information of the wireless channel" and "to use of a band of the ATM channel appropriate for the state of the wireless channel." In other words, the ATM band of the ATM channel is instructed based on the state of the wireless channel. Independent claims 5, 6, and 10 recite similar features. Applicant submits that Kobayashi fails to teach or suggest such features. In particular, Kobayashi fails to teach or even suggest instructing an ATM channel based on the state of a wireless channel. Kobayashi merely teaches setting common signal channel capacities based on measured traffic values. Applicant submits that setting a common signal channel capacity based on a measured traffic value is not the same as instructing an ATM channel based on the state of a wireless channel.

For at least the above reason, Applicant respectfully submits that independent claims 1, 5, 6, and 10 are patentable over the cited reference. However, in the interest of compact prosecution and to more particularly describe features in the present application, Applicant has amended independent claims 1, 5, 6, and 10 to include features previously presented in dependent claims 2, 7, 11. Accordingly, independent claims 1, 5, 6, and 10 now recite that the QoS management unit instructs said channel control unit "to set priority to each data received from the plurality of mobile apparatuses according to a state of each wireless channel through which the data in question is transmitted and received and conduct relay through said ATM channel based on the priority in question." Applicant respectfully submits that none of the cited references teach or suggest such a feature.

In rejecting this feature, the Examiner asserted that "Kazutoshi teaches that [the] channel Qos management unit instruct the channel control unit to set priority to each data received form the plurality of mobile apparatuses. (6:51-67 and 7:1-5 and Figure 6)." (Page 3 of Office Action). Applicant respectfully disagrees with the Examiner's position. The cited portion of Kazutoshi states:

> As shown in FIG. 6, an interoffice channel capacity is divided into a segment for use by speech channels, a segment for use by a common signal channel, and a remaining segment which is not currently used. The remaining segment may be used by the speech channels and the common signal channel. When the speech channels and the common signal channel compete for the remaining segment, the speech channels have priority to use the remaining segment.

(Col. 6, line 63- col. 7, line 6; emphasis added). Accordingly, Kazutoshi merely teaches that the speech channels have priority over the common signal channels with regard to the remaining segment of interoffice channel capacity. Applicant submits that such a teaching has relation whatsoever to setting the priority to each data received from the plurality of mobile apparatuses according to the state of each wireless device. First, Kazutoshi's teaching does not relate to setting a priority for data received from wireless devices. Second, Kazutoshi's teaching does not relate to setting a priority based on a state of each wireless channel through which the data in question is transmitted and received. Instead, Kazutoshi merely teaches that that a speech channel has priority over a common signal channel. Accordingly, Applicant submits that Kazutoshi fails to teach or suggest all of the elements recited in independent claims 1, 5, 6, and 10 as amended.

Applicant submits that Raychaudhuri and Anzar do not cure the deficiencies of Kazutoshi. As discussed above, Raychaudhuri teaches a base station that has the ability to communicate and transfer data between a fixed ATM network and a wireless ATM network. However, Raychaudhuri fails to teach or suggest setting the priority to each data received from the plurality of mobile apparatuses according to the state of each wireless device. Anzar is directed to a method for "policing incoming cell-based traffic at network nodes." (Col. 1, lines 8-10). In particular, Anzar teaches monitoring arrival times to determine conforming and non-conforming cells. (See, e.g., Fig. 4, abstract, and col. 3, lines 26-67).

However, similar to Kazutoshi and Raychaudhuri, Anzar also fails to teach or suggest setting the priority to each data received from the plurality of mobile apparatuses according to the state of each wireless device.

II. Conclusion

Because none of the references cited by the Examiner, either separately or in combination with each other, teaches all of the required limitations of independent claims 1, 5, 6, and 10, Applicant submits that each of these independent claims are patentable over this prior art. Furthermore, because dependent claims 3, 4, 8, 9, 12, and 13 are each directly or indirectly dependent upon independent claims 1, 5, 6, and 10, Applicant submits that each of these claims are allowable for at least the same reasons as discussed above.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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